

REMARKS

Applicants request favorable reconsideration and withdrawal of the rejection set forth in the above-mentioned Official Action in view of the following remarks.

Claim Status

Claims 1 through 4 remain pending in the application with Claim 1 being the only independent claim.

Section 103 Rejection

Claims 1 through 4 are finally rejected under 35 U.S.C. § 103(a) as being unpatentable over previously-cited and -applied Kimura, et al. in view of Ohtsuka, et al. also previously-cited, and further in view of newly-cited U.S. Patent No. 6,253,041 (Tomizawa, et al.).

Traversal of Section 103 Rejection

Amended Claim 1 calls for an image forming apparatus that includes an image bearing member, a transfer member, and a fixing means. The transfer member transfers an image from the image bearing member onto a recording material, which includes a heating member and back-up roller, which forms a nip in cooperation with the heating member. The back-up roller includes a conductive material containing layer. A fixing means fixes the transferred image onto the recording material.

The claimed image forming apparatus is selectively operable in a normal mode for a case in which the recording material is paper and in a resin sheet mode for a case in which the recording material is a resin sheet. A voltage applied to the transfer member, when the resin sheet mode is selected, is lower than a voltage applied to the

transfer member, when the normal mode is selected, so that an absolute value of a front surface potential of the resin sheet becomes small.

Kimura, et al. relates to an image forming apparatus having a transfer voltage and a process speed control. Kimura, et al. discloses that a process speed in a normal mode, i.e., when transferring a toner image from a photosensitive member onto a paper sheet, is 75 mm/sec, and a process speed in an OHP mode, i.e., when transferring a toner image from a photosensitive member onto an OHP sheet, is 15 mm/sec. See, for example, column 5, lines 1 through 8. Thus, the process speed in the OHP mode is

$$\frac{15 \text{ min/sec}}{75 \text{ min/sec}} \text{ or } 1/5 \text{ of the process speed in the normal mode.}$$

Further, Kimura, et al. discloses that a transfer voltage in the normal mode is 2.0V for full color printing and the transfer voltage in the OHP mode is 1.0V for full color printing. See, for example, column 5, lines 9 through 12. Thus, the transfer voltage

in the OHP mode is lower, by a ratio of $\frac{1.0V}{2.0V}$ or 1/2, than the transfer voltage in the normal mode.

Consequently, in Kimura, et al., a ratio of the surface potential of a paper sheet and the surface potential of an OHP sheet is 1:5/2. In Kimura, et al., the surface potential of the OHP sheet is higher than the surface potential of a paper sheet, which is contrary to the claimed invention.

The Examiner observes that Kimura, et al. does not disclose a back-up roller containing a conductive material layer of limited resistance. (The resistance of a

conductive material containing layer is a feature recited in dependent Claim 3.)

Accordingly, the Examiner looks to Ohtsuka, et al. for disclosing this feature.

Ohtsuka, et al. relates to a fixing rotatable member having a conductive parting layer and a fixing apparatus using the rotatable member. Specifically, Ohtsuka, et al. is merely cited for disclosing a back-up roller having a conductive material containing layer. It is respectfully submitted that Ohtsuka, et al. does not remedy the above-noted deficiencies of Kimura, et al. *vis-à-vis* the invention defined in Claim 1.

The Examiner also observes that Kimura, et al. and Ohtsuka, et al. do not expressly disclose when the resin sheet mode is selected that the absolute value of a front surface potential of the resin sheet becomes small. Accordingly, the Examiner looks to Tanizawa, et al. for disclosing this feature.

Newly-cited Tomizawa, et al. discloses an image forming apparatus. With reference to column 6, lines 60 through 62, the Examiner states that Tomizawa, et al. discloses that “[A] surface potential of a sheet is proportional to a supplied charge amount. Kimura, et al. does, in fact, disclose that “[for] the OHT, the surface potential rises linearly in preparation to the supplied charge” amount... However, the surface potential of a sheet is effected not only by the supplied charge amount but also by the conveyance speed of the sheet. If the supplied charge amount is constant and the transfer speed of the sheet slows, the surface potential of the sheet increases.

Applicants submit that Tomizawa, et al. does not disclose the claimed feature that a voltage applied to the transfer member when the resin sheet mode is selected is lower than a voltage applied to the transfer member when the normal mode is selected so that an absolute value of a front surface potential of the resin sheet becomes small. It is

respectfully submitted that Tomizawa, et al. does not overcome the above-noted deficiencies of Kimura, et al. and Ohtsuka, et al. *vis-à-vis* the claimed invention.

It is also respectfully submitted that the combination rejection is not well founded. The Examiner has provided a *rationalization* for combining the teachings of the cited art based on the benefits of doing so. However, there is no basis in either cited art *per se* for any such combination.

The Examiner argues that the combined teachings of Kimura, et al. and Ohtsuka, et al. would yield an image forming apparatus including a small surface potential of surface potential of a resin sheet when the transfer voltage used in resin sheet mode is lower than that of normal mode as taught by Tomizawa, et al. In the Response to Arguments section at page 4 of the Official Action, the Examiner states that he believes that it is the nature of biased transfer rollers that if the voltage applied to the transfer roller is increased or decreased, the surface potential on a sheet in the nip of the roller will become large or small respectively. Although the Examiner believes such to be the case, it is respectfully submitted that he has not established a proper basis for supporting a combination rejection.

A combination rejection is proper only when there is some suggestion or motivation in the cited art *per se* to cause one having ordinary skill in the art to combine the teachings of the cited art. There is nothing in the cited art which supports the position that it can be combined in the manner suggested. Even if the art could be so combined, the mere fact that the art can be combined is not sufficient if there is no suggestions in the art that such a combination is desirable. For example, see ACS Hospital Systems, Inc. v. Montefiore Hospital, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

In view of the foregoing, it is respectfully submitted that Claim 1 is allowable over Kimura, et al., Ohtsuka, et al., and Tomizawa, et al. either taken individually or in any combination.

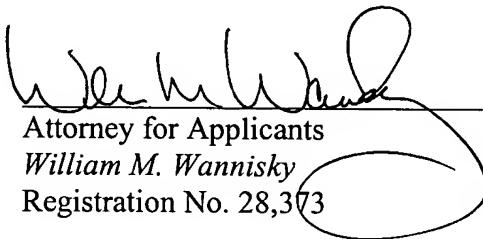
Closing Comments

Claims 2 through 4 depend from Claim 1 and are allowable by virtue of their dependency and in their own right for further defining Applicants' invention. Individual consideration of the dependent claims is respectfully requested.

Favorable reconsideration and an early Notice of Allowance are respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should be directed to our address listed below.

Respectfully submitted,



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